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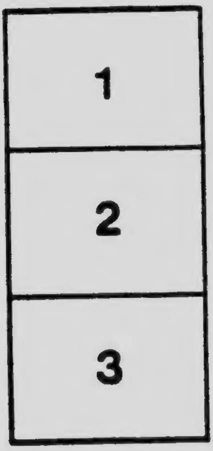

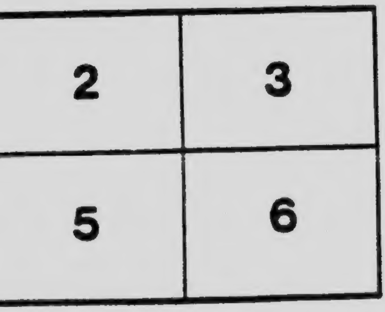

BLOOD STREAM

BY
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PUBLISHED BY
CANADIAN TONITIVES CO.
LIMITED
BRIDGEBURG, ONT.

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Tonitives and the Blood Stream

THOUSANDS of years ago, before the human race occupied this earth, we know that the land and sea were peopled with a host of grotesque monsters whose bones, changed to everlasting stone, the hands of science are digging from the earth, and these, one by one have passed away until now we have but the merest traces of their enormous bodies, but we must remember that they breathed the same air and drank the same water which we are consuming today, every one of us. Nature allows every animated being to take from the earth certain substances from which their bodies are built, but Nature just as relentlessly declares that when the spark of life has departed these bodies must return to the elements from which they came.

We can take the body of a man into the laboratory and the chemist can determine the presence of a few simple substances. He can determine the quantity of these substances and can set before him on the table glass jars containing the exact materials which Nature takes in building a human body, but no scientist can or ever will be able to shape these elements into the semblance of a human frame. Nature alone can accomplish this and Nature takes these substances, forms them into compounds, shapes these compounds into bone, muscle and brain and breathes into them the spark of life. Nature then demands that we provide this body with certain substances which we know as food and this toll Nature demands of every living creature, and if the food is not supplied the body must pay the penalty of death and disintegration. Who can say but what the elements of which his own living, breathing body are composed were not at one time part of some living being which occupied this world centuries ago, even before the human race was created!

Before man became civilized, he knew nothing of cooked food, but subsisted upon the flesh of animals and the vegetables which he found growing wild. He lived the life of an animal, spent much time in the pursuit of prey and indulged in vigorous muscular exercise. As the race developed these conditions changed. He began to wear clothing to protect him from the cold, and to cook his food that it might be more readily devoured and in many ways assumed a mode of living foreign to what Nature intended. The result is that today

Bridgeport, 1912

Nature is not receiving in many cases the necessary substances through the food to keep the body in its healthful condition. Furthermore, certain substances are essential, we know not exactly why, to complete the wonderful chemical work which must be performed in the healthy organism.

The trend of medical science seems to run in vast cycles or periods based on certain fundamental ideas in regard to the treatment of disease. Years ago it was considered necessary whenever sickness overtook an individual to draw from his vessels a quantity of blood in order that some of the poisonous material responsible for his infirmity might be removed. So common was this treatment that the barber was accustomed to open the vessels of his suffering customers and this custom has handed down to us the colored pole which is universally recognized as the sign of the barber's trade, it being grasped in the hands of the patient that the arm might be supported and the vessels more readily reached. Then came a period of specialization wherein the medical profession sought to extract from the vast horde of medicinal substances one particular drug which would be a cure for each particular disease and the result was a comprehensive analysis of practically the entire vegetable world in search of substances whose action on the body could be used to its benefit.

It is now becoming more and more recognized that what might be called a general tonic treatment applied to the blood stream is the rational treatment for combating diseased conditions; for it is but seldom that a sickness is limited to any particular region or organ of the body. So closely and so intimately are the vital forces associated in their work, all of which is accomplished through the blood, that should one suffer, all must feel to a greater or less degree a sympathetic weakness and lack of strength.

It has been discovered that certain substances taken into the body not only accomplish the result of fertilizing the tissues, but they also possess the further peculiarity of increasing their life and vital strength. The taking into the body and into the blood of these strengthening, enriching, fertilizing and vitalizing substances we can call a Tonitive Treatment, the fundamental principle being the increasing of the tone and vigor of the body and substances which accomplish this may properly be called tonitizing. Such a treatment is now being put up and sold under the name of Tonitives. It is to a consideration of some of the applications of Tonitive Treatment that the following paragraphs are devoted.

What Is Blood?

In this age of scientific discovery and progress, it is hard to believe that the man who first advanced the theory that the blood in our bodies actually circulated, or in other words, "flowed" through the vessels was regarded by people of his time as a crank and even suffered persecution, but such is the case. As an illustration of the mistaken viewpoint of our forefathers we have the common word "artery," which we all know refers to the big blood vessels of the system, and this word means "carrying air," it being supposed that the air we breathed in some way got into these big tubes and thence to all parts of the body.

Before we consider the great fundamental fact that the red blood is the source and life of all the tissues of the body, let us look for a moment at its wonderful structure, and see how marvelously Nature has adapted it for its various duties. We have all seen blood, and recognize it as a scarlet liquid, which on exposure to the air soon becomes a solid, and this solid substance or "clot," acts as a plug to prevent unnessary escape of the vital fluid from the vessels when wounded. The red color is due to the presence of millions of tiny particles of tissue, called "blood cells" or "corpuscles," each of a bright orange color, and if a jar of freshly drawn blood be allowed to stand, these corpuscles soon settle to the bottom, leaving a clear yellowish liquid, known as the "serum." The red substance in the corpuscles is called haemoglobin, and it possesses the wonderful power of taking up oxygen in the lungs and carrying it to all parts of the body where it is needed. The serum is a highly concentrated food, taken from the food we eat, and it also contains a quantity of used up food or waste matter taken from the tissues.

There are two kinds of blood in the body, commonly known as red and blue, or pure and impure. The pure red blood is found in the big arteries leading from the heart and lungs, while the blue blood, loaded down with impurities, must be taken through the veins to the lungs and kidneys, and there purified and returned, red and renewed, to do its work.

Red Blood Is Vitality And Strength

As an instance of the great importance of the Red Blood in the body we may here note the various organs which are designed solely for its help and assistance. The lungs are the great purifying organs, and serve no other purpose; the heart is merely a perfected pump to drive the blood from place to place where it is needed, the kidneys but strainers or filters for the blood, and the spleen, arteries and veins, lymphatics, etc., are all devoted to its service.

In the red blood is the life of the body. If all the vessels carrying blood to any one part are cut or closed, that part immediately begins to wither and die, and, on the other hand, many have been brought from the edge of the grave by having thrown into their veins fresh blood taken from another human body. In the body of a man of about 175 pounds, there will be found about 14 pounds of blood, or about 8 per cent. of the body weight. In the smaller arteries is a very complicated system of valves which control and regulate the amount of red blood sent to any particular part of the body at any one time. When any organ, as the stomach, is engaged in its appointed task, then the red blood supply to that part is increased, and the increased supply kept up until the work is over for the time.

Red Blood Supplies Its Own Medicine

Then there are certain parts of the body which are enabled by their nature to manufacture from the red blood certain substances or materials which are required for the various purposes within the system. These parts are known as glands, and the substances they make may be useful or waste. The saliva of the mouth, the gastric juice of the stomach, etc., are instances of useful substances made from the red blood, the bile from the liver has both useful and waste matter in it, and the kidney secretion is purely waste and is passed from the body. All these organs would be useless and their work impossible without a proper red blood supply.

All the food taken into the body through the mouth must first be taken up into the blood stream and then distributed to the various organs where it is needed. Even the stomach, which is the great digestive organ, must get its food from the red blood supplied to it. The whole process of digestion is the changing of our daily food supply into a soluble form which the red blood can take up and carry along to where it is required.

Distribution Is As Essential As Production

Now, as an illustration, let us consider for a moment a few facts in regard to the country in which we live. We have a population of some millions of people, each alive and doing his daily work, whatever it may be. We all of us require certain things for our comfort, as coal for heat, wool for clothing, and wheat for bread. It is obviously impossible for each one of us to dig our own coal, raise our own sheep and grow our own wheat. Some one else must do these things for most of us. We find large deposits of coal in certain sections, and hundreds of men at work digging it out, acres of ripening wheat swaying in the breeze of our farms, and vast tracts of land given over to stock raising and grazing. Now the Western farmer needs the coal, and the busy coal miner the wheat, and so we find the railroads stretching across the country, distributing and circulating the coal, wheat and other necessities to where they are most needed and useful. Consider for a moment the terrible effect on the country were all the railroads to be suddenly rendered idle, or for the sake of the argument, that the cars were to be hauled empty and unloaded. Some of the commonest necessities of life would be lacking throughout the country, and pile upon pile and load upon load of others would be lying idle, useless and spoiling where produced, in excess of the local demand. Vast and terrible confusion and suffering would result, and only the re-establishment of communication would relieve the conditions.

Division Of Labor Is Nature's Law Of Economy

Now we know that cities and towns are made up of thousands of individuals, men and women, governed and controlled, and all working for the common good and benefit. So we find the human body to be made up of millions of tiny invisible bodies or "cells," grouped and arranged in organs, each having certain definite work to do, and depending mutually on each other for food, energy and support. In the brain we have nerve cells by which we think and move, in the eye, sight cells, in the muscles, movement cells, etc. As a general statement, we may say that each organ is made up of a single type of cell.

The Life Of The Body Is The Life Of The Cells Of The Body

These cells are continually dying and as continually being restored, and the balancing of these two actions determines whether the body grows or wastes away. The birth of a new cell is a very wonderful process, and it consists in an old healthy cell splitting into two smaller ones, each of which grows up into the full size and function of its parent. Each cell can do but one kind of work, and must spring from a similar cell, one of like type. Each cell requires a constant supply of food, and throws off waste products which must be carried away and gotten rid of. Each is surrounded by a fine network of hairlike blood tubes called "capillaries," which are continually receiving supplies of fresh blood from the arteries. All strength and vigor, in fact, every function of the body, depends on its organs, each organ is just as strong as the cells of which it is composed, and each cell is only as strong as its red blood supply. Even the bones, hard and solid as ivory, have leading into them small openings through which nourishing red blood streams are poured.

The Cells And Organs Are Mutually Dependent Upon Each Other For Support.

If we imagine each organ as representing some distinct part of our country, and each cell a single human being, we can readily see how important is the blood stream in distributing and supplying each and every cell with its particular necessities. As most of the things that we each of us need for our daily comfort are produced elsewhere and brought to us, so each cell of the body is supplied with food that is furnished, developed and purified by some cell far away, as in the liver and intestine.

In case outside food be cut off, and the stomach be empty, certain cells must be sacrificed to furnish food for others, such as fat, and muscle, which will be used up to feed the brain and more vital organs. Pure red blood, furnished in sufficient quantities in a healthy body, will nourish every cell with its particular food, but only as long as it is rich and properly fertilized. To develop this condition a treatment of Tonitives is recommended.

Why Is Air Necessary To Our Existence?

What becomes of all the food that is carried to the cells? What of all the dead cells? Why does a full grown healthy cell need any more food? This introduces another problem, that of the body *heat*. Not only does the blood stream carry food and waste, but it acts as a big hot water system in distributing the body heat, and making it uniform. But where does this heat come from? We mentioned a little while ago a wonderful substance making up the red part of the blood, which could take up oxygen from the air we breathe and carry it to the tissues, and by the means of the capillaries bring the vital oxygen into practical contact with every cell of the body. Oxygen is one of the substances which make up the air we breathe, and it has the peculiar property of combining and uniting with other substances, and when it combines or unites it forms new substances, usually a gas, and also gives off heat. When we burn wood or coal we must supply air, and this air supplies oxygen, which unites with the wood or coal and forms a gas, and also gives off intense heat. So in the body each cell is attacked by the oxygen brought to it by the blood, and the cell is actually burned up, producing heat, smoke and ashes. The heat is carried away by the blood stream and distributed throughout the system, supplying the necessary energy to the tissues, just as the heat of the coal supplies the energy of the locomotive. The smoke is taken up by the blood, making it blue and impure, and carried to the lungs where it is separated and carried out by the air we expire. The same gas is given off by burning coal or wood that is given off from the lungs, commonly known as carbonic acid. It is not a violent poison, but soon causes suffocation when present in the air in large quantities. The same effect is produced in the air by an open fire not connected with a chimney as by a large number of men or animals shut in a room together. The ashes or residue remaining from the cells, which is not gaseous and carried away by the lungs, is separated and strained out by the kidneys, and often when the blood is tired and deficient in energy, this ash or waste residue accumulates, poisoning and irritating the tissues, and forming the condition which is known as gout or rheumatism.

Fertilized Blood Means Health
Feeble Blood Means Disease

From the above it is evident that every part of the body depends entirely upon the red blood supply. Pure red, rich fertilized blood makes and preserves strong healthy organs. Now let us reflect. As strong red blood makes healthy organs, and consequently healthy bodies, so does the bodily health suffer in direct proportion as the blood supply fails, and here we have the keynote to the whole situation.

Properly tonitized blood is its own life in health and furnishes its own medicines when sick. For years men have been groping about in the dark, in attempts to bolster up and assist weakened tired out nature. We have had stomach medicines, liver medicines, kidney medicines and what not. Some have done good, others none. But at last we are beginning to realize that a medicine or treatment is beneficial only in so far as it revives, enriches and fertilizes the blood stream. Some have succeeded in doing this to a slight degree and these have been successful in curing disease only to that extent. The object to be obtained by the use of Tonitives consist simply in fertilizing and reviving the blood stream to the point where it carries along its course ample supplies of oxygen and food to every cell and organ of the entire body.

Strong Blood Is The Birth Right Of Every Human Being

We have long been accustomed to use the expression "of good blood" when referring to the splendid physical qualifications in the human race, and similarly when we are referring to the animal kingdom, to speak of stock as being "blooded" is to imply perfection and quality. This, of course, is simply an unconscious recognition of the fact that in the blood and from the blood is every desirable physical character. And similarly must we admit that it is the function of the blood not only to *produce* this physical perfection but also to *maintain* it. The health of our forefathers may be transmitted to us by birth but we must maintain it ourselves by keeping the blood in good condition.

We use the word "health" quite commonly and we might be somewhat at a loss to explain exactly what we mean by this term. Possibly the best definition of health is to require that the body possess an absolute lack of unpleasant or painful sensation. A healthy body does not suffer pain and while, of course, it may become tired, responds and recovers quickly under food and rest. Pain is the red danger sign which Nature places by the side of the track to warn us that something is wrong and should be given attention. And pain is also defined as the "cry of tired blood." There is, of course, one kind of pain which is an acute result from actual injury to the tissues such as a cut or a burn, and it must be understood that we are not referring to this type of pain but rather the deep-seated persistent distress which is very often long continued and chronic and which shows that some bodily need is not being properly met.

"All Played Out"

Another symptom which, while not so severe, is also to be recognized as a warning of tired blood, It is what is commonly known as fatigue or "feeling tired." As we must except some forms of pain which result from direct injury so we must except such forms of fatigue and exhaustion which result from hard, long continued labor or strain. But one of the first symptoms of tired blood is a feeling of lassitude and a general disinclination to work and, as is often stated, "the patient goes to bed tired and gets up just as tired." Now it must be admitted in all of these cases, whether we are considering pain or exhaustion, that the most reasonable form of treatment is to remove the cause of the trouble, and as it is evident also that the cause of the trouble is an actual starving of the tissues the reasonable suggestion is to carry sufficient food to them and the only way that sufficient food can be carried to the various parts of the body is by reviving, fertilizing and enriching the blood which Nature intended should perform this service. Properly fertilized blood furnishes every substance necessary to nourish, rebuild and sustain every tissue of the body and please remember in considering these facts that *in direct proportion as rich, red, properly fertilized blood restores and builds up the tissue cells so does poor, weak, watery, tired blood actually starve and lower the vitality of each organ.* Pain cannot and does not exist in a perfectly healthy, well nourished body and any form of distress or suffering is but the cry of a starved tissue, which should immediately be met by a thorough treatment of Tonitives, continued until the above symptoms have disappeared.

Red Blood Is The Best Defense Against Germs Of Disease

One of the most valuable and important functions of the blood which within the last few years has become better understood and utilized is its action in neutralizing and destroying the poisons produced by the germs of disease.

Weak Blood Allows Disease To Gain A Foothold

We do not recommend, of course, Tonitives as a treatment for acute diseases. If you have a case of typhoid fever, scarlet fever, appendicitis or any other of the acute diseases in your household the best course would be to call in immediately your family physician. But, on the other hand, it is possible to so prepare the blood in the healthy person that the diseases will be unlikely to gain a foothold. If some member of a community is stricken down with a contagious disease, such as diphtheria or pneumonia, and a number of persons should be unwittingly exposed to the danger of infection by being brought into contact with the sufferer, it must not be assumed that everyone so exposed will fall ill of the disease, even though they were all similarly exposed. This is very readily explained by the fact that those escaping the terrible disease do so by reason of their strong, healthy, red, properly nourished blood, which destroys the invading disease germs before they can obtain a foothold and begin their deadly work.

Medical science has established quite firmly the fact that nearly every acute disease, such as fever, small-pox, consumption, etc., is due to infection of the body by some of the very minute forms of vegetable life which we know as *disease germs*. When these germs obtain an entrance into the body they proceed to grow and by their growth they make certain poisons which are often sufficiently deadly to destroy life. Now the only defense which our bodies possess against these enemies of the race lies in the blood stream. This property of the blood is being used more and more in the treatment of disease and we are using vaccination, antitoxin and other substances which are directly extracted from the blood itself as a cure. Antitoxin, which has produced such marvelous results in the terrible disease known as diphtheria, is merely blood serum which has been artificially fertilized and developed in the body of an animal with this end in view. Everyone is brought into contact with the germs of disease continually. Most of us have the germs of pneumonia in our throats all the time but if the blood is active, strong and healthy these germs can do no damage. We all of us recognize certain forms of skin trouble such as boils, pimples, etc., as the evidence of "bad blood" or tired blood. Our view of the matter is simply that in every case where the blood is sufficiently strong and healthy all disease germs will be overcome, and a treatment of Tonitives should put the blood in that condition.

Repair Of Injury Is Dependent On Sufficient Red Blood

Wherever and whenever any organ or tissue of our bodies is injured, whether by violence or by the attack of disease germs, Nature promptly opens the valves in the arteries and sends a very much more abundant blood supply to the part. This is exhibited plainly in the swelling which follows a broken bone or sprain and is Nature's method of increasing the food supply and restoring the elements which the blood furnishes Now this supply will be furnished, if Nature is able to do so, in sufficient quantity to do the work required, but if the blood is tired or lacking in strength it is perfectly plain that a much greater supply is necessary than if the blood be strong and pure. Tonitives are intended to assist Nature to make the blood active, strong and pure.

How Do We Catch Cold?

This explains what we mean by "catching cold." We are all familiar with the symptoms and signs of a cold. It is caused by disturbances in the circulation, the blood supply being furnished more abundantly than Nature intended in order to counteract or overcome some irritation. We know how our noses become stopped up and sometimes closed so that it is necessary to breathe through the mouth and this is due to the increased amount of blood being sent into the soft tissues which line the nose and as the cavities of the nose are surrounded by solid bone the increased amount of blood swells up these lining tissues and they are forced together. If the blood is sufficiently strong and properly fertilized this condition very soon passes away and the increased pressure being relieved the tissues previously swollen shrink back to their natural size. The richer and stronger the blood stream the quicker this is accomplished. This is why Tonitives are recommended.

Why Do Some People Never Catch Cold?

Some people are able to withstand almost any exposure, chill, etc. and as they say "they never take cold." Others must be continually careful to avoid getting their feet wet, sitting in a draught or any similar exposure, as it is almost invariably followed by severe sickness. The difference in these two conditions lies in the fact that the first class have strong, healthy, red blood which quickly does the work required of it and allows the sensitive tissues to recover their original strength; whereas in the second case the tired impoverished blood must be brought to the tissues in such great quantities and for so long a time that the "cold" is the result. It is unfortunate in one way that the blood has so many duties in the body because in conditions such as we have been describing the increased blood supply not only does its work, which is expected, but it also does other things which are not necessary but which cannot be avoided when poor blood is present in excess. For instance, the little glands or cells in the lining of the nose, whose duty it is to supply the mucus which is always present to keep the lining of the nose soft and moist and assist the little nerves which enable us to smell, become crowded with blood. They do more work than Nature intended them to do and the result is the unpleasant discharge of mucus which we commonly associate with a cold in the head.

Catarrh Is The Direct Consequence Of Impoverished Blood

If this cold persists sufficiently long, due to the lack of strength in the blood, the result is that these little glands become permanently enlarged, out of proportion to the duty which they should perform and we have a condition of chronic discharge, stopping of the nostrils, etc. which we know as catarrh. The obvious remedy for such conditions is to so strengthen and fertilize the blood by the use of Tonitives that it will do its work promptly and the little vessels and the tissues will not be crowded and distended, and then colds or catarrh will be impossible.

The Cause Of Coughing

Another very distressing condition of the body which, while not a disease in itself, is always an evidence that diseased conditions exist, is the occurrence of a *cough*. A cough is an attempt on the part of Nature to remove some foreign substance which has accumulated within the bore of the air tubes leading to the lungs or within the lungs. Normally the passages leading to the lungs are kept moist by mucus secretions from certain glands which are found in the walls, and in health this secretion never accumulates beyond the amount necessary to keep the surface moist. In conditions of lowered vitality which result in a disturbance of the balance of the blood stream, these little tubes receive too much blood and this increased quantity of blood causes an increased action of the glands which results in an excessive amount of the mucus secretion. It is an endeavor to get rid of this mucus secretion that causes the cough.

The Cough Is A Danger Signal

While in itself a cough is generally not severe or particularly dangerous, yet it is an indication that the blood stream entering into and supplying the lungs is not sufficient and it is a warning that this must be corrected, and this can be done satisfactorily only by so tonitizing and enriching the blood that no surplus will be present and the parts will recover their normal strength and tone. Furthermore, when the little tubes of the lungs become inflamed by the enfeebled blood we have a condition which, if neglected, very often affords an ideal opportunity for the germs of consumption to secure a foothold, and the frightful results of such infection can be seen in the thousands of consumptives all about us.

Anemia and Chlorosis

There are certain diseases which are frequently seen and which are merely due to impoverished, tired blood, the blood current being deficient in its cellular elements. These are not caused by the germs of disease but are due to lack of the necessary elements for building up a proper blood stream. They are known as Anemia and Chlorosis and are particularly common in young girls just reaching maturity and are too frequently seen to require description here. We have all noted the peculiar pale, bloodless lips, the sallow, lifeless skin, sometimes even approaching a yellow or green color, and the general depression, languor and tired feeling which this disease presents. It is a very unfortunate condition, as this is the particular time in life when the tissues throughout the body require the maximum of food and nourishment and it is perfectly plain that Tonitives applied directly to the tired blood stream, supplying the vital fluid with the lacking ingredients is a rational means of meeting these requirements.

Red Blood Is Absolutely Essential For A Sturdy Framework

The bony system or skeleton of the body is mostly formed during the early years of life and after the age of twenty the skeleton usually stops growing. During the early years of life, while the bones are being formed, it is very necessary that food supplies should be present in sufficient quantity and the first appearance of any shortage of food supply as shown by the lack of healthy color should be promptly met.

There are certain diseased conditions of the bony parts which are caused by the germs of consumption and while no medicine, of course, can restore an actually diseased, broken-down bone much can be done to prevent later troubles by administering Tonitives and so enriching the red blood in the developing stage that the disease germs cannot become established.

All Labor Is Brought About By Muscular Action

All movement in the body is brought about by the action of muscles, which are of two kinds, the voluntary, of whose action we are conscious, and the involuntary of whose action we are unconscious, such as the stomach and heart.

A muscle consists of very tiny fibers laid side by side very much after the fashion of a big cable composed of fine wire. Each of these little tiny fibers has the power of shortening in length under the stimulus of the nerves and when these little fibers shorten the result is necessarily the shortening of the entire muscle and this power applied to the bone enables us to move and act.

In order that these little fibers may contract they must be very generously supplied with food and the more vigorously they are made to contract the more food they naturally require. In order to provide this food more red blood must be pumped to them. If a person engages in vigorous hard work such as swinging an axe or pitching hay, the demands made upon his muscles cause an increased supply of blood to be sent to them and as an evidence of this we have the increased beating of the heart. If exercise is carried to excess this increased heart beat may reach a point where it is perceptible and can be felt and this is, of course, a sign that the person is overdoing and should rest.

Muscular Action Demands Rich Blood Containing Food and Oxygen

The increased supply of red blood means an increased supply of oxygen, and this oxygen carried to the muscles causes the tissues to burn up more rapidly and this is evidenced by the quantity of heat produced so we have the body actually becoming hotter. We all know how we become warm under exercise.

The action of the muscles is purely mechanical and requires food and oxygen. Now the more food and oxygen sent to the muscle, or in other words, the more it is exercised, the more of these little muscle fibers are developed and the stronger the person becomes, or to summarize, the first effect of exercise is a rapid heart beat, and increased heat; the later effect is an actual development or growth of the muscle.

Now this is all perfectly normal and healthy when not carried to an extreme, but in order that it may be natural and healthy, the muscles must have the proper supply of food which, of course, means a proper supply of red blood and unless the blood is properly tonitized hard work very quickly uses up the food which the blood contains and then we are warned by a sensation of fatigue that time must be given to the blood to take up new food supplies. This we call "becoming tired" and the reason we rest is to give the tired blood a chance to pick up new food from that stored away in the body to carry it to the muscles. Tonitives revive tired blood and assist it to absorb its food and oxygen.

Tired Blood Means Tired Tissues

So we see that a man's capacity for work is in direct proportion to the richness of the blood stream and one of the earliest symptoms indicating that the red blood needs tonitizing is the tiring readily of which so many people complain. Unless the muscles are supplied with proper blood exercise is of no value, as the growth of the muscle must be brought about by sufficient food brought to it. Tonitives will assist the blood to supply food to the muscles.

The Ashes From The Burning Of The Cells Must Be Removed

Not only do we find the blood so important to the man who works hard to rebuild his exhausted tissues, but there is another condition which must be considered here. In certain cases where the blood is not properly taken care of in the other organs, due to its own tired condition and lack of strength and where not enough oxygen is carried to the tissues throughout the body, it becomes loaded down with the ashes from the dead cells which have been burned up, and these ashes in the form of uric acid are carried through the muscles and joints and there deposited. This poisoning gives rise to the very common and unpleasant condition known as Muscular Rheumatism, or if deposited in the joints, known as Gout. The symptoms of these conditions are too well known to require description, and it is sufficient to state here that Rheumatism and Gout are purely blood troubles no matter how exhibited and can only occur in people having impoverished, tired blood, blood deficient in carrying power and it is found that by restoring this blood to its proper strength and richness by the use of Tonitives that all of this unpleasant condition will be done away with and the parts given a chance to recover their normal healthy condition.

The Brain, Continually At Work, Requires Continual Blood To Feed It

Even more important in maintaining the activity and function of the body than the great system of muscles is the nervous system which, of course, includes the brain. While the muscles are the actual instrument by which all motion is brought about, they act only when influenced and stimulated by impulses sent out to them through the nervous system.

In the brain are created and developed all the various functions, and the nerves are simply bundles of wire through which these impulses are sent through the body where they can accomplish their work by acting on muscle fiber.

While one set of nerves is carrying these impulses from the brain to the muscles, another set is bringing to the brain impressions which we receive through the organs of feeling, tasting, hearing and other so-called special senses. No actual effort can be seen in the brain itself. It is, apparently, resting all the time, but it actually never rests. Even during sleep, "tired Nature's sweet restorer," certain parts of the brain are hard at work keeping up the movements of the lungs, renewing and replenishing the supply of oxygen in the blood and keeping the heart hard at work pumping the supplies of oxygen and food to every cell in the body.

The great importance of the brain is proven by the fact that the big arteries of the neck carry to it a large proportion of the entire blood supply of the body, the two arteries of the neck being very large and conveying a great volume of blood. On the other hand, the importance of pure red blood in stimulating and nourishing the brain itself cannot be neglected. Tonitives are especially recommended for over worked brain and nerves to reinforce the blood stream so they will be amply supplied with nourishment.

Healthy Normal Sleep Is The Greatest Restorer Of The Worked Out Cells

We might say just a word here in regard to sleep. One of the commonest and most universal of all body functions, its exact philosophy has never been thoroughly understood. but the most recent theory and one which we can most probably accept is that during sleep the blood supply to the brain is diminished, thus cutting down the supply of energy carried to the sensitive cells and they, therefore, cease their activity for a time and as the brain cells cease their activity they remove, temporarily, from us the power of hearing, seeing, feeling, etc. and we are totally oblivious of what goes on around us. This period of inactivity, of course, also includes the muscles, except those of the vital organs and even their activity is greatly diminished during repose. The purpose of this is obvious when we consider that during the day we have been working continuously various cells of the body to their maxium capacity and their supply of energy has run out and during the night the blood stream is given an opportunity of carrying to each and every cell the necessary food and taking away and discharging the waste materials formed, but how futile the attempt if the blood is tired and lacks strength! Instead of waking bright and refreshed, the unfortunate sleeper arises in the morning but half rested and but illy prepared to undertake another day of toil. The value of a thorough and persistent treatment of Tonitives to revive the blood stream, in such cases, is perfectly obvious.

Tired Exhausted Blood Prevents Restful Sleep

Sleep is the greatest blessing that Providence has given mankind, yet how few of us in these strenuous days are able to enjoy it and receive its benefit. The condition known as sleeplessness or Insomnia is one of the most unfortunate. The poor sufferer dreads the night. His eyes refuse to close and his brain crying out its call for food which the red blood alone can give and is not able, because of its tired out condition, conjures up the most frightful apprehensions. Worry succeeds worry and dread follows dread. The other organs of the body fail to receive the rest and necessary food supply from the weakened tired blood, become dulled and then often reacts to a condition of undue and unusual activity. Every sound seems a torment. The muscles twitch and the sufferer tosses from side to side in a vain endeavor to dismiss his apprehensions which, while imaginary, seem most real. Were the blood sufficiently strong and properly tonitized, sleeplessness would be most unusual and its accompanying train of ills and disturbances banished.

Then, too, many people, while the tired brain seems to sleep, do not really rest. So strained and tired is the blood that normal sleep is impossible and while they close their eyes and seem to sleep, yet they are troubled with nightmare, disturbing dreams, etc. and awake in the morning but little refreshed. The proper remedy to apply is not a powerful narcotic which by actual poisoning and deadening of brain cells will cause them to relax, but to strengthen and invigorate each one by supplying rich, red, tonitized blood which will perform the duty which Nature intended in the natural way.

Rest Without Food Must Fail To Refresh

No function of the brain can be properly carried out if the cells are ill-nourished and half-starved. The demands of modern life require the brain to be kept in a state of highest activity and if it is not properly supplied with food and energy from the all-providing blood current, it is unable to keep up. Many a man who should be just reaching the prime of life is what is called a "nervous wreck." The overworked cells have responded to their limit but like a tired horse have run their race and demand a period of rest, but rest alone will not accomplish what is needed. They must not only be given a period of ease, but must be supplied with proper food and again we see how important to our health and comfort is the use of Tonitives so that this rich, red blood current can carry to the uttermost parts of our bodies its vitalizing life-giving food and energy!

Neuralgia Is But The Cry Of A Starved Nerve

Sometimes, but fortunately not commonly, some part of the brain refuses to do its work. It may be due to the rupture of a tiny blood vessel which lets loose a clot of blood into the brain itself. This we know as paralysis and is, of course, beyond the power of drugs to remedy. But we have a number of conditions affecting the nerves which do not necessarily result in complete loss of function and among these we may mention the common condition known as Neuralgia. Strictly speaking Neuralgia means a "nerve ache" and how true this definition is many a tortured sufferer can testify. It can readily be seen, that, inasmuch as it is the function of the nerves to convey sensation and pain, any disturbance of the nerve itself must be extremely painful. A normal, healthy nerve never causes disturbance unless irritated, but when the red blood becomes tired, the nerve cell, in common with others, suffers not only from lack of food, but from the poisoning and irritation resulting from the materials contained in the blood, which healthy, active, red blood is able to so modify that they can be thrown out from the body. One of the largest nerves is that known as the sciatic, which passes down the under part of the thigh, and this nerve frequently becomes the seat of attack by these poisonous materials. The extremely painful condition known as Sciatica or Sciatic Rheumatism results.

Relief To The Nerves Must Be Sent Through The Blood Stream

The rational course of treatment to help any nerve or nerve cell must be to revive the normal activity of the blood. In no other way can the nerve be reached or a cure accomplished and in this case, as in the others, treatment should be carried out by the use of Tonitives bringing back the red blood to its normal healthy condition. This rich, tonitized blood will then, after throwing off its own load, pick up from the inflamed nerve trunks these poisonous materials, thus relieving the irritation and by bathing them copiously with a rich food supply, containing ample quantities of the necessary building materials, restore the half-dead, crying fibers to a healthy condition. In any case, whether it be health or disease, strength or weakness, our treatment must be directed to the individual *cell* so that the action of any part of the body can be controlled. It matters not how well established or how perfect a system may be developed in a factory or business, the results accomplished will be determined by the efficiency of each and every individual employee; and so in these bodily conditions, it is by reaching the individual cells that results are brought about, and remember it is only through the blood stream that the individual cells are approachable. Tonitives fertilize the blood stream, thus creating efficiency in each and every cell of the body.

Food Must Be Digested Before The Body Can Absorb It

Let us consider now a few facts in regard to the question of our daily food. We all of us know that food must be supplied at regular intervals and in sufficient quantity. It is first taken into the mouth and broken up into fine particles and then passes on to the stomach. The stomach is simply a bag or sack capable of holding one meal and here the food is acted upon by a very powerful substance known as the gastric juice. If this is present in sufficient quantities and in proper strength the food is within a short time dissolved and forms a solution very much like soup which then passes into the intestine, where the nutritive elements are absorbed and taken up into the blood stream.

The Blood Must Supply All Necessary Digestive Fluids

Now we all know that most foods, if set in a warm place for a short time, will decay and spoil. Milk sours rapidly if kept warm, and meat, eggs and other foods are soon changed by the action of bacteria to foul, ill-smelling decay. In a healthy stomach food does not ferment and decay, but is so rapidly dissolved that this cannot take place. Food cannot be dissolved in the stomach, however, without sufficient quantities of gastric juice containing the pepsin which is the important substance. Now pepsin is naturally produced in the stomach itself by a series of glands lying in the stomach walls and if these glands are doing their work properly the food is soon dissolved and passes on its way. Nature has placed at the outlet of the stomach a wonderful structure known as the *pylorus* and this acts as a valve, permitting only properly dissolved food to leave the stomach. In case the glands of the stomach do not get sufficient quantities of properly tonitized red blood, they are unable to produce this pepsin in sufficient quantities, and then the food begins to ferment and decay and we have the condition known as Indigestion and Dyspepsia. The fermenting, decaying food throws off quantities of gas and these irritating gases are discharged through the mouth. This is not only productive of great discomfort to the sufferer but the bad breath thus resulting frequently makes him a nuisance to all his friends. The nerves in the stomach wall are irritated by the poisons generated in the decaying food and we have acute distress which accompanies Indigestion.

By taking Tonitives, thus supplying the stomach with sufficient quantities of properly tonitized rich, red blood, the glands are able to provide the necessary dissolving substances in abundant quantity and Dyspepsia cannot occur.

As soon as the food has been reduced to a soluble form in the stomach it passes on into the intestines.

The Food First Enters The Body From The Intestine

Possibly no organ or function of the body is more dependent upon a plentiful supply of rich, red blood than the intestine. Nearly six times the length of the body, it is supplied with a most elaborate supply of blood vessels and capillaries, and is, of course, the only organ of the body from which the blood flows richer in food elements than when it reaches it. Remember here that no substance in the intestine is actually in the body, any more than when it is in the mouth. The swallowing of food simply passes it along the alimentary canal, and before it can get to the cells and tissues it must be absorbed, soaked up into the little blood vessels which line the intestine. Millions and millions of these little tufts of capillaries are to be seen in the lining of the gut, giving it the appearance of a piece of velvet, and as the food, dissolved in the stomach, passes along, each little tuft soaks itself full of nourishment. These little capillaries open into bigger vessels, and these join and form the great *portal* vein, which carries all the absorbed food to the liver for purification. This we will consider later.

The walls of the intestines are made up largely of little tiny muscles, arranged in various ways, some running in a circular direction or around the tube, and some lengthways. By a sort of a kneading motion these muscles squeeze and force the food through, and as it passes along more and more of the nourishment is extracted, till finally nothing but waste is left. Nature intends that this waste should be passed along out of the body at least every twenty-four hours, and if for any reason it remains and decays, all sorts of unpleasant results ensue. This condition, commonly known as constipation, is unfortunately too common in modern life. So common is it that it would hardly be worth while here mentioning its various symptoms in detail, headache, foul breath, loss of appetite, etc., but it is, nevertheless, a very serious condition. To protect the lining of the gut from irritation by the food in passing, Nature has provided a means of lubrication, quantities of slippery mucus being poured out by thousands of little tiny glands that lie in the intestinal walls. In conditions of health the cells of the intestinal blood vessels, by a sort of selective action, simply absorb harmless, nourishing substances from the food, but when the intestine is diseased or is not doing its work properly, due to tired blood, certain other poisonous materials are taken up into the blood stream with the nourishment and these poisonous materials carried by the blood to all parts of the body irritate and poison all its organs.

If for any reason the little muscles of the intestine do not receive sufficient blood they are unable to do their work and the food not being passed along with sufficient rapidity, stagnates and decays, generating quantities of this poisonous material which is absorbed into the blood stream. Tonitives should be taken to prevent disorders of the intestines.

Most Cathartic Medicines Act By Irritation

It must be remembered here that neither the stomach or the intestine get their nourishment from the food which they contain but must be supported by blood which is brought to them by special vessels. If the muscles of the intestine become weakened or if the natural secretions of the intestine are diminished due to impure and impoverished, tired blood, Constipation must result. The common treatment for this disease is the taking into the stomach of various cathartic or purgative medicines which irritate the weakened intestinal walls so that greater quantities of fluid are poured out to dilute and wash away the irritating substances. If a grain of salt is placed in the eye we know that the effect is to cause a very abundant flow of tears, but this is due to the irritation of the salt, the same effect being produced by a grain of sand or a cinder. The taking of salts, so-called, to relieve Constipation acts in precisely the same way in the bowel, the irritating chemicals causing a flow of liquid to wash away the offending material. This, of course, is not good treatment.

If a horse, for instance, is tired out and overworked to exhaustion, by vigorously applying a lash it is possible to stimulate the animal to renewed effort, but only at the price of still further exhaustion and, eventually, breakdown and we have the same condition in an intestine artificially whipped and spurred by cathartic medicines. Sooner or later the muscles of the intestine lose strength and tone and the unpleasant condition with its attendant evils becomes chronic.

Now it is evident that Tonitives, by furnishing a renewed supply of rich, red, properly tonitized blood and by strengthening and enriching the blood stream going to the intestines, thus giving the muscles additional strength and vigor, will help them to do their work in a natural and healthy manner.

Appendicitis and Tonsilitis Are Frequently Caused By Impoverished Blood

There are in the body certain organs which have no particular purpose but which are left over from previous conditions of existence. Thousands of years ago they performed some function in the body which had not yet reached its present perfected stage. Among these are the *Tonsils* which lie in the throat and the *Vermiform Appendix* which is attached to and a part of the intestine. Now Nature is never wasteful and as the organs become less and less useful in the body, Nature cuts off the amount of blood flowing to them and their strength and resisting power are correspondingly diminished. In health, nevertheless, there is sufficient blood sent to these tissues so that no harm results but with a weakened or tired blood stream the small amount of food which they should receive is cut down still further and with the cutting down of the blood stream comes the opportunity for the growth and development of germs of disease to which the body is continually exposed and against which the sole protection we possess is the blood stream. This is why we have so commonly inflammations of these organs, *Tonsilitis* and sore throat being prevalent nearly all of the time and for the same reason the disease known as *Appendicitis*, which is an inflammation of the *Vermiform Appendix*, owes its origin to weakened and tired blood, partly from its own lack of resistance and partly from the *Constipation* which is associated with impoverished blood.

It is not claimed that Tonitives or any other purely tonic or general treatment can be relied upon to cure *Appendicitis* in its acute stage, but if the blood is kept in its proper rich, red, healthy tonitized condition, the disease is much less liable to occur.

Life Depends Upon The Liver

The largest and most essential organ of the digestive system is the Liver. Few people realize how very important is the function of this great gland. A famous philosopher when asked if life was worth living, replied "It depends upon the liver," and this is, indeed, true. We can only mention here a few of its most important functions, but we may classify them into two great groups. Being a gland it secretes a fluid which we know as bile and it also is the great store house or coal bin where reserve supplies are put away until needed. We spoke a moment ago of the Portal vein which carries to the liver the food absorbed from the intestines and when it reaches the liver the little cells of which the organ is composed take up this nourishing material and convert it into a still further prepared form, removing from it the poisonous materials which have been absorbed with the food itself.

Nearly everything we eat contains a certain amount of poisonous material. The flesh of animals particularly contains waste materials which the blood of the animal contained when killed and all of these must be removed from the food before it is ready to be thrown into the blood stream. If the Liver is not able to do this, the poisonous materials pass on into the circulation and then we have the general poisoning of the body which we generally know as a bilious attack.

In case more food is taken into the body than is needed at once, the Liver stores up in its cells great quantities and we know that the Liver of an animal placed on a piece of paper will make a grease spot from the fat which is contained in it. We also know that the Liver contains sugar which can be detected readily by the taste when it is cooked for food.

The Liver Manufactures Medicines From The Blood

In addition to purifying and storing up the food the little cells of the Liver also secrete and throw into the intestine quantities of the substance which we commonly know as gall or, more properly, bile. The bile contains the poisonous materials which the Liver has extracted and these pass from the body in health with the rest of the waste matter. The bile also contains a substance which is very important in the digestion of food, and it also is Nature's own laxative. Bile is really a medicine formed from the blood in the Liver and its purpose is to stimulate the intestinal walls to their proper and sufficient action, and the use of Tonitives assists in the production of bile.

This brief review will give an idea of the important duties which this organ must perform and we now must remember that every one of these functions is absolutely dependent upon sufficient red blood taken into the organ itself. No matter how much stored-up food the Liver contains, it cannot use one particle of it, but the little cells must be nourished by the rich, red blood brought to them directly from the heart and lungs in order to do their work and by supplying the tiny liver cells with rich, red, tonitized blood we thus provide the most complete, efficient and satisfactory cure for Constipation and its attendant evils.

Every day of our lives our bodies manufacture enough poisons to kill a half a dozen men and were it not for the fact that the cells of the body are endowed with enormous vitality and resisting power, health would be impossible. By using Tonitives thus providing the cells with sufficient quantities of properly tonitized blood, we are assisting them in their work in the most reasonable and only sensible manner.

The Heart Must Have Food To Accomplish Its Task

The sole purpose of the heart is the pumping of the blood through the vessels. In reality we have two hearts, combined in one organ, the right heart pumping blood through the lungs and the left heart forcing it to all other parts of the body through the general circulation. From the hour of birth until the last breath has left the body, the heart is at work hour after hour and day after day, averaging more than sixty beats per minute throughout our entire life time. Nature has never yet succeeded in accomplishing any work without supplying energy in some form or other, and that the heart may perform this stupendous task, it must be given ample food and nourishment, and when the blood is tired it suffers as well as all the other muscular organs from lack of food. The control of the heart which is, of course, through the nervous system, is most wonderful, one set of nerves causing it to beat faster and another set holding it in check, but they can simply control its beat. The organ must depend for its action upon the food supply brought to it. The various symptoms of heart weakness, shortness of breath, palpitation, dizzy flashes, etc., give warning that the organ is not receiving sufficient food and we can secure the best results, meeting the demand for tonitized blood, by prompt and thorough treatment of Tonitives, taken regularly according to directions, until the symptoms have entirely disappeared.

Heart Trouble Frequently Is Due To Stomach Trouble

Then, too, certain other distressing heart symptoms are due to causes outside of the organ itself. When the glands of the stoma[illegible]re suffering from impoverished, tired blood [illegible]e unable to digest the food it ferments and ca[illegible]he formation of quantities of gas and the stomach becomes distended. Now the heart and the stomach are very close together and when the stomach becomes distended it often presses against the heart, impeding its action and causing fluttering, palpitation and similar discomfort. The remedy is obvious.

The Smoke From The Burning Cells Is Given Off From The Lungs

Closely associated with and surrounding the heart are the lungs and they are mutually dependent upon each other in many ways. In the lungs the blood is brought into close contact with the air we breathe and the blood takes up quantities of oxygen to carry to the various cells and organs and it gives off the carbonic acid, the smoke produced by the burning up of the cells. The lungs are being continually exposed to the action of irritating substances which we breathe in with the air and it is quite possible to determine whether a person has lived in a pure atmosphere or a smoky atmosphere by examining the lungs after death.

Certain occupations such as grinding or milling where the atmosphere becomes full of fine particles of dust, cause a very peculiar change in the lungs and these tiny particles of dust sometimes accumulate in such quantities that the lungs may become practically filled up with dirt. The minute a particle of dust of any kind gets into the lungs it is attacked by the blood stream and if it should be, as is often the case, a germ disease, the blood immediately kills it and renders it harmless.

Rich, Red Blood The Greatest Defense Against The White Plague

The germs of Consumption are about us continually floating in the air and frequently obtain admission into the lungs. If the blood be sufficiently strong and rich they do no harm, being promptly destroyed, but if the blood is not able to do this service, then they obtain a foothold and we have then one of the most terrible diseases of modern times, often known as the Great White Plague. Fortunately, if the blood be sufficiently strong, even though the disease gets a foothold, it can be cured, the most important curatives being plenty of food and lots of fresh air or oxygen. It is only through red blood that these can act, and Tonitives assist the blood to absorb fresh air or oxygen.

Another very common disease and very fatal is Inflammation of the Lungs or Pneumonia which is caused by a bacteria or disease germ which is present in our mouths and throats practically all of the time. With the blood, however, in a proper healthy condition these disease germs do no harm, but await, a constant menace to health, the moment when the blood becomes tired, weakened and impoverished and then they seize on the delicate structure of the lungs, causing the disease which is so often fatal.

Pneumonia is so deadly for two reasons. In the first place we have the disease itself with its accompanying fever and prostration and in the next place in this condition the lungs actually become filled up and solid so that the little air cells wherein the blood may take up the life-giving oxygen are put out of commission. This, of course, means that the blood itself must suffer, being insufficiently supplied with air and when the blood suffers every cell and organ in the body suffers. If the disease once gains a strong foothold, medicines can do but little and it is evident that the proper treatment lies in preventing the attack of the disease germs by building up a barricade of rich, red blood properly tonitized and in great abundance, which is the purpose of Tonitives.

Influenza Is Often Due To Weakened Blood

Another disease whose symptoms are so varied in their character as to make the selecting of any particular set impossible is that known as Influenza or the Grippe. It has been recognized as a particular disease for some years and is characterized by disturbances of digestion, headache, pain throughout the body and prostration, in some cases being fatal. The impossibility of selecting the disease as being centered in any organ or set of organs proves conclusively that it is a disease of circulation, tired blood affording the opportunity for the disease germs to obtain a foothold. If we but consider for a moment the common, time proven, household remedies for the Grippe, Colds, etc., we can see that the blood is at the bottom of these troubles.

For instance, the placing of the feet in hot water, a common household remedy, acts by drawing a large quantity of the blood away from the diseased parts until the organs affected can recover their natural condition. When we speak of "drawing" the inflammation by means of a poultice we are simply modifying the circulating blood stream by outside means and the fact that these remedies are so often curative is evidence that it is only by treating the blood itself that benefit can be actually accomplished. It is interesting in this connection to note that recent scientific discoveries have placed the very distressing and annoying disease known as Rose Cold or Hay Fever among those occasioned by a faulty blood stream. Tonitives act by reviving the chemical activity and correcting faulty conditions of the blood stream.

The Ashes From The Burning Cells Must Be Removed By The Kidneys

The lungs and kidneys are the two great blood purifying organs. The lungs have been considered and their purpose in clearing from the blood the smoke and gases from the burning of the cells explained, but the duty of removing the ashes left by the burning of the cells to produce heat and energy falls upon the kidneys of which Nature has very thoughtfully provided two so that if one be destroyed the other can do the work. The kidneys are merely filters or strainers who are called upon to separate from the blood liquid waste matter which in a healthy person should equal a quart of fluid per day. No matter how remote or how distant in the body the cell may lie, its useless remains are snatched up by the blood stream, converted into uric acid and urea and whirled away to the kidneys where millions of tiny tubules strain this material, converted into soluble form by the liver, that it may be discharged from the body.

The Clinkers Remain Behind and Cause Trouble

It is only when ample supplies of oxygen in a rich, red blood stream are carried to the cells that the oxidization is complete and Nature has, unfortunately, provided only for the elimination of the products of complete burning. The ashes are readily disposed of, but the clinkers and the partly burned material Nature does not know how to handle and these clinkers, present in the blood, which the tired, weak, impoverished blood has failed to reduce to ashes, unable to pass out through the tubules of the kidneys cause the distressing conditions which we commonly associate with uric acid; *Gout*, *Rheumatism*, *Sciatica*, *muscle pains*, all of these are the accumulations of these poisonous waste matters which in some cases of Gout of the fingers pile up in the joints to such an extent that the joints actually crack open showing the chalky deposits underneath. Remember that all the waste of the body must be burned and reduced to ashes by the oxygen of the blood before the kidneys can remove it. Moreover, alcoholic indulgence and other irritating substances throw a still greater load on the kidney cells and as they, in common with all other cells of the body, require food that their work may be done, the necessity for Tonitives to furnish ample supplies of rich, red, tonitized blood cannot be overlooked.

Starved Kidney Cells Result In Poisoned Blood

An unfortunate feature of kidney troubles commonly known as *Bright's Disease* or *Diabetes* lies in the fact that the kidney cells themselves are so poisoned by waste materials which they should throw out but which have not been sufficiently burned up that their efficiency is to a still greater extent diminished and here we have a very unfortunate condition. The kidneys are unable to remove the poisonous, partly burned waste from the blood and the poison from the blood is poisoning the kidneys. In some conditions the nourishing food matter known as albumen is taken up and destroyed by the kidney cells, and this appearing in the water is a common symptom of the trouble.

In other conditions the sugar taken in the food which should be burned up in the body to produce heat in the body is strained out by the kidneys and then we have the condition known as *Diabetes*, but outside of the actual invasion of the kidney by the germs of disease against which, of course, our only protection is rich, red blood, there is no condition of the kidney which is beyond the reach of sufficient, healthy, red blood to cure.

The kidneys normally remove all the waste if it is properly oxidized and reduced to ashes before reaching them and we may, therefore, state that failure of the kidneys to do their proper work is a direct result of inactivity or lack of proper chemical action in the blood. Tonitives assist this chemical activity in supplying oxygen to create it. Their use in all cases of kidney complaints is especially recommended.

The Blood Of The Parents Determines The Health Of The Child

Finally we have the blood in its relation to the most wonderful of all the bodily functions, that of the perpetuation of the human race and its wonderful character can be seen more clearly when we realize that in the elements of a single drop of blood can be concentrated the physical characteristics descending from generations of ancestors. From a minute quantity, hardly perceptible, of the circulating blood of the body, springs a tiny cell, but one single cell, and this single cell, microscopic in size, beyond the power of vision, of the human eye, combined with another single cell sprung from the blood of the opposite parent, transmits into one tiny spark of life all that may be good or bad, strong or weak, healthy or diseased, in generations gone by.

From the blood of the parents comes the health and strength, mental and physical, of the descendants and how useless to expect that this marvelous task may be performed by tired or poor anemic blood currents, lacking in the vital elements and deficient in strength-giving characters. From the mother's blood, moreover, comes the bone, brain and other tissues of the infant and how useless to expect strong muscles, sturdy bones and active brains when the sluggish vital current of the mother can hardly bear its own burden and as is often the case, must actually break down and destroy the tissues of the mother that the child may have some reasonable portion for its own.

This is plainly shown in the so often decaying teeth, shrinking muscles and loss of weight which so many prospective mothers suffer and the frightful prevalence of indigestion, kidney troubles and so on, shows the lack of vigor and strength when this extra load and drain comes on the blood stream of the parent. Nature has, with wonderful forethought, provided a surplus of blood which is evidenced in the healthy woman and the appearance of which should not be associated with disturbance or suffering. But how seldom do we find the condition of perfect health and freedom from pain which is, of course, Nature's intention and when we consider that all of these discomforts and distressing symptoms with their extremely unfortunate results may be simply due to the lack of a few substances for which the blood is clamoring, how reasonable it is to believe that by meeting the need which Nature has established, all of these unpleasant conditions may be avoided. For months after the coming of a child, it must be supported by the stores of fluid which Nature provides and no effort of science or skill can duplicate Nature's food for the tiny atom of humanity, but how often do we find Nature's supplies inefficient. The vast numbers of artificial foods at present sold in such quantities [illegible] more vividly

than words how often is Nature's supply insufficient and it should be stated here that no amount of subsequent care or attention can counterbalance the woeful results of starvation which the offspring of an enfeebled, weakened mother must get during the first period of its earthly life. The value of Tonitives to the expectant, as well as the nursing mother, cannot be overestimated.

"Where The Brook And River Meet"

Then, too, when the girl approaching womanhood stands on the threshold of her mature existence, only too often do we find this period, which should be one of independent sturdy growth and development, held back and impeded by lack of rich, red blood to supply the needs of the developing organs. At no period in her future life is Tonitives to maintain rich, red blood so essential. At no period in her whole life is this need so great, but how seldom do we find the blood stream bearing sufficient quantities of food for the growing tissues?

"Where The River Meets The Sea"

And again when with advancing age the period of motherhood is past Nature declares that with the cessation of active, physical life certain readjustments of physical existence must occur, and frequently we find this period, which should be as peaceful and free from disturbance as any other normal function, a time when, due to lack of strength and vigor, numerous painful and distressing complications appear. Dreaded, and properly so, by the majority of women, the passing from active physical life into peaceful old age means the onset of numerous disturbances of the body, sometimes even approaching permanent nervous derangements. This great change of conditions may be made one without any of the evil influences attached to it, which so many experience. All one has to do is to properly fertilize and enrich the blood stream, which may be done by the use of Tonitives, so the change will occur as Nature intended and result without any of the prevalent disturbances or complications which are sometimes connected with it.

Old Age

The prophet of old wrote: "The days of our years are three score years and ten, and if by reason of strength they be four score years, yet is their strength, labor and sorrow. for they are soon cut off and we fly away." But there are modern philosophers who say that man should live in the enjoyment of his normal activities to at least one hundred years, and that death should come as a peaceful cessation of life unattended with acute pain or any kind of distressing symptoms. We all know that the average duration of human life is far short of the prophet's seventy years. A common saying is that "a man is as old as his arteries." Now, what is the best safeguard of the soundness of the arteries if it is not in the steady flow of perfect blood through them in youth and in maturity? A sound heart, unimpaired arteries, perfect digestion and a constant, sure elimination of waste products are the best guaranties of a peaceful and happy old age. Tonitives are offered as an aid in securing these fundamental conditions.

Circulation Of Blood In Its Relation To Health

It has been the endeavor of the writer to present in the foregoing paragraphs a few ideas, resulting from the study of the blood in its relation to health. Were every human being of this world in possession of ample quantities of rich, red blood in his or her vessels, sickness, weakness and suffering would be unknown, and to such as are free from physical distress we offer our hearty congratulations, but to the millions of feeble, weak and suffering of our people, this little book is dedicated in the hopes that its perusal may be the means of turning their attention to Tonitives and incidentally to a way of health and happiness.

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